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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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10/599,761

10/06/2006

Petri Jokela

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27045

7590

10/22/2008

ERICSSON INC.  
6300 LEGACY DRIVE  
M/S EVR 1-C-11  
PLANO, TX 75024

EXAMINER

VAUGHAN, MICHAEL R

ART UNIT

PAPER NUMBER

2431

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PAPER

**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

<b>Office Action Summary</b>	<b>Application No.</b> 10/599,761	<b>Applicant(s)</b> JOKELA ET AL.	
	<b>Examiner</b> MICHAEL R. VAUGHAN	<b>Art Unit</b> 2431	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☒ Responsive to communication(s) filed on 06 October 2006.
- 2a) ☐ This action is **FINAL**.                      2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 1-25 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-25 is/are rejected.
- 7) ☒ Claim(s) 5,6 and 25 is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9) ☒ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 06 October 2006 is/are: a) ☐ accepted or b) ☒ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

### Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All    b) ☐ Some \*    c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

### Attachment(s)

- |  |   |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)            | 4) <input type="checkbox"/> Interview Summary (PTO-413)           |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)   | Paper No(s)/Mail Date. _____                                      |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date <u>10/6/06</u> .   | 6) <input type="checkbox"/> Other: _____                          |

## **DETAILED ACTION**

The instant application having Application No. 10/599,761 filed on 10/06/06 is presented for examination by the examiner.

### ***Specification***

The following guidelines illustrate the preferred layout for the specification of a utility application. These guidelines are suggested for the applicant's use.

#### **Arrangement of the Specification**

As provided in 37 CFR 1.77(b), the specification of a utility application should include the following sections in order. Each of the lettered items should appear in upper case, without underlining or bold type, as a section heading. If no text follows the section heading, the phrase "Not Applicable" should follow the section heading:

- (a) TITLE OF THE INVENTION.
- (b) CROSS-REFERENCE TO RELATED APPLICATIONS.
- (c) STATEMENT REGARDING FEDERALLY SPONSORED RESEARCH OR DEVELOPMENT.
- (d) THE NAMES OF THE PARTIES TO A JOINT RESEARCH AGREEMENT.
- (e) INCORPORATION-BY-REFERENCE OF MATERIAL SUBMITTED ON A COMPACT DISC.
- (f) BACKGROUND OF THE INVENTION.
  - (1) Field of the Invention.
  - (2) Description of Related Art including information disclosed under 37 CFR 1.97 and 1.98.
- (g) BRIEF SUMMARY OF THE INVENTION.
- (h) BRIEF DESCRIPTION OF THE SEVERAL VIEWS OF THE DRAWING(S).
- (i) DETAILED DESCRIPTION OF THE INVENTION.
- (j) CLAIM OR CLAIMS (commencing on a separate sheet).
- (k) ABSTRACT OF THE DISCLOSURE (commencing on a separate sheet).
- (l) SEQUENCE LISTING (See MPEP § 2424 and 37 CFR 1.821-1.825. A "Sequence Listing" is required on paper if the application discloses a nucleotide or amino acid sequence as defined in 37 CFR 1.821(a) and if the required "Sequence Listing" is not submitted as an electronic document on compact disc).

### ***Abstract***

Applicant is reminded of the proper language and format for an abstract of the disclosure.

**There should not be any drawing references in the abstract.**

The abstract should be in narrative form and generally limited to a single paragraph on a separate sheet within the range of 50 to 150 words. It is important that the abstract not exceed 150 words in length since the space provided for the abstract on the computer tape used by the printer is limited. The form and legal phraseology often used in patent claims, such as "means" and "said," should be avoided. The abstract should describe the disclosure sufficiently to assist readers in deciding whether there is a need for consulting the full patent text for details.

The language should be clear and concise and should not repeat information given in the title. It should avoid using phrases which can be implied, such as, "The disclosure concerns," "The disclosure defined by this invention," "The disclosure describes," etc. The

### ***Drawings***

Figures 1-4 should be designated by a legend such as --Prior Art-- because only that which is old is illustrated. See MPEP § 608.02(g). Corrected drawings in compliance with 37 CFR 1.121(d) are required in reply to the Office action to avoid abandonment of the application. The replacement sheet(s) should be labeled "Replacement Sheet" in the page header (as per 37 CFR 1.84(c)) so as not to obstruct any portion of the drawing figures. If the changes are not accepted by the examiner, the

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applicant will be notified and informed of any required corrective action in the next Office action. The objection to the drawings will not be held in abeyance.

### ***Information Disclosure Statement***

The information disclosure statement filed 10-6-06 fails to comply with 37 CFR 1.98(a)(2), which requires a legible copy of each cited foreign patent document; each non-patent literature publication or that portion which caused it to be listed; and all other information or that portion which caused it to be listed. It has been placed in the application file, but the information referred to therein has not been considered. There is no supplied copy of the AC reference.

### ***Claim Objections***

Claims 5 and 6 are objected to because of the following informalities: there is an extra "A" that was entered which needs to be deleted.

Claim 25 is objected to because of a typo of a period in the middle of the claim.

### ***Claim Rejections - 35 USC § 112***

The following is a quotation of the second paragraph of 35 U.S.C. 112:  
The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

Claim 1, 5, 8, 23, 24, and 25 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

As per claim 1, it is unclear who or what is doing the associating of an identifier with the first host. The claim language raises the question of whether the identifier belongs to the first host or just is used in context with the first host. The notion of association is ambiguous in the context of the claim. Furthermore the question of how many identifiers is raised as well. An identifier is disclosed, and referred to as the identifier. The claim goes on to reference the stored identifier. Whether or not this is the exact same identifier is open to interpretation. Appropriate correction is required.

Similarly claims 23, 24, and 25 reference the stored identifier. The lack of antecedent basis for this term raises the argument of whether or not there is one unique identifier.

Claim 5 recites the limitation "the secure HIP connection". There is insufficient antecedent basis for this limitation in the claim. Claim 1 mentions a partially secure communication.

Claim 8 recites the limitation "the IP addressing". There is insufficient antecedent basis for this limitation in the claim.

***Claim Rejections - 35 USC § 102***

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(a) the invention was known or used by others in this country, or patented or described in a printed publication in this or a foreign country, before the invention thereof by the applicant for a patent.

Claims 1-4, 6-16, 19-20, and 22-25 are rejected under 35 U.S.C. 102(a) as being anticipated by “Host Identity Protocol: Achieving IPv4 – Ipv6 handovers without tunneling” by Wall et al. hereinafter Wall.

As per claim 1, Wall teaches a method of using the Host Identity Protocol (HIP) to at least partially secure communications between a first host operating in a first network environment and a second, HIP-enabled, host operating in a second network environment, with a gateway node forming a gateway between the two environments, the method comprising:

associating an identifier with the first host (pg. 2, 2<sup>nd</sup> col., paragraph 7), storing the identifier at the gateway node (Fig. 2, I1), and sending the identifier to the first host (Fig. 2, R1);

using the identifier as a source address in a subsequent session initiation message sent from the first host to the gateway node and having an indication that the destination of the message is the second host (pg. 3, 1<sup>st</sup> paragraph); and

using the stored identifier at the gateway node to negotiate a secure HIP connection to the second host (pgs. 3-4, section D).

As per claim 2, Wall teaches the identifier is generated at the gateway node (Fig. 2, HIT R).

As per claim 3, Wall teaches the identifier is generated in response to the sending of a context activation request from the first host to the gateway node (Fig. 2, HIT R).

As per claim 4, Wall teaches the context activation request is a Packet Data Protocol (PDP) context activation request to activate a PDP context, and the identifier is used as the PDP address in the PDP context (Fig. 3, Packet Structure).

As per claim 6, Wall teaches the first host is HIP enabled and the secure HIP connection is negotiated between the first and second hosts (pgs. 2-3, section II).

As per claim 7, Wall teaches the identifier is of the same length as an address in the addressing scheme used by the first host for communication with the gateway node (pg. 2, last two lines).

As per claim 8, Wall teaches the IP addressing scheme is used and the identifier is used as the source IP address in the session initiation message (pg. 2, last two lines).

As per claim 9, Wall teaches the identifier is a look-up identifier associated with a HIP identity tag generated for and associated with the first host, allowing the HIP identity tag for the first host to be retrieved at the gateway node using the look-up identifier (pgs. 2-3, HIT).

As per claim 10, Wall teaches the identifier is a HIP identity tag (pgs. 2-3).

As per claim 11, Wall teaches the HIP identity tag is included in a HIP header during negotiation of the HIP connection between the gateway and the second host (Fig. 3).



As per claim 12, Wall teaches the HIP identity tag is a Host Identity Tag (HIT) or a Local Scope Identifier (LSI) (Fig. 3).

As per claim 13, Wall teaches the HIP identity tag is generated from a key pair (pg. 2, last paragraph).

As per claim 14, Wall teaches the key pair which is stored in the gateway node for use during subsequent HIP communications between the gateway node and the second host (Fig. 2).

As per claim 15, Wall teaches the identifier is in the form of an IP address (pg. 2, last paragraph).

As per claim 16, Wall teaches the first network environment is a mobile network environment (pg. 4, section III).

As per claim 19, Wall teaches the second network environment is an Internet network environment (pg. 4, section III).

As per claim 20, Wall teaches the gateway node provides the functionality of a HIP proxy (pg. 4, section III and pg. 5, 4<sup>th</sup> paragraph).

As per claim 22, Wall teaches the identifier with an address associated with the gateway node as the source address in a subsequent message sent to the second host (pg. 4, section A).

As per claim 23, Wall teaches A communications system comprising:  
a first host operating in a first network environment (Fig. 4),  
a second, Host Identity Protocol (HIP) enabled, host operating in a second network

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environment (Fig. 4),

a gateway node forming a gateway between the two environments (Fig. 2),

means for associating an identifier with the first host (Fig. 2),

means for storing the identifier at the gateway node (Fig. 2),

means for sending the identifier to the first host (Fig. 2)

means for using the identifier as a source address in a subsequent session

initiation message sent from the first host to the gateway node and having an indication that the destination of the message is the second host (pg.5, 4<sup>th</sup> paragraph), and

means for using the stored identifier at the gateway node to negotiate a secure HIP connection to the second host (Fig. 2).

As per claim 24, Wall teaches A method, for use by a gateway node, of using the Host Identity Protocol (HIP) to at least partially secure communications between a first host operating in a first network environment and a second, HIP-enabled, host operating in a second network environment, with the gateway node forming a gateway between the two environments, the method comprising:

associating an identifier with the first host (pg. 2, 2<sup>nd</sup> col., paragraph 7), storing the identifier at the gateway node (Fig. 2, I1), and sending the identifier to the first host (Fig. 2, R1);

receiving a subsequent session initiation message sent from the first host to the gateway node, the message having the identifier as a source address and also having an indication that the destination of the message is the second host (pg. 3, 1<sup>st</sup> paragraph) and

using the stored identifier at the gateway node to negotiate a secure HIP connection to the second host (pgs. 3-4, section D).

As per claim 25, Wall teaches An apparatus for use as a gateway node between a first host operating in a first network environment (Fig. 4) and a second, Host Identity Protocol (HIP) enabled, host operating in a second network environment (Fig. 4), comprising:

means for associating an identifier with the first host (Fig. 2),

means for storing the identifier at the gateway node (Fig. 2),

means for sending the identifier to the first host (Fig. 2),

means for receiving a subsequent session initiation message sent from the first host to the gateway node, the message having the identifier as a source address and also having an indication that the destination of the message is the second host (pg. 5, 4<sup>th</sup> paragraph) and

means for using the stored identifier at the gateway node to negotiate a secure HIP connection to the second host (Fig. 2).

### ***Claim Rejections - 35 USC § 103***

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention

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was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claim 5 is rejected under 35 U.S.C. 103(a) as being unpatentable over Wall in view of USP Application Publication 2004/0091117 to Narayanan, hereinafter Narayanan.

As per claim 5, Wall teaches a secure communication between two HIP enabled hosts. Wall is silent in disclosing that one host is not a HIP enabled host. Narayanan teaches that gateways are put in between different types of network so that hosts in each network can talk to one another (0008). One of the types of network Narayanan discloses is the HIP network. Gateways in a sense, translate the messages passed between hosts so that each host can understand the other. Therefore it would have been obvious to one of ordinary skill in the art at the time of the invention to use gateway nodes between HIP enabled hosts and non HIP enabled hosts because it would allow many types of hosts to communicate over a diverse and ever evolving network. The claim would have been obvious because the technique for improving an internetworking communication was part of the ordinary capabilities of a person of ordinary skill in the art, in view of using gateways to translate messages between different types of network.

Claims 17, 18, and 21 are rejected under 35 U.S.C. 103(a) as being unpatentable over Wall in view of USP Application Publication 2002/0057662 to Lim.

As per claim 17, Wall is silent in disclosing a 3G mobile environment. Lim teaches using a gateway to connect a 3G mobile network to an IP network (0004). The notion that Wall's teaching is directed to mobility and Lim teaching a type of mobile network is easily recognizable. Claim 17 would have been obvious because a person of ordinary skill has good reason to pursue the known options within his or her technical graphs. Therefore it would have been obvious to one of ordinary skill in the art at the time of the invention to try the 3G teaching of Lim with the HIP mobile network of Wall.

As per claim 18, Wall is silent in disclosing a UMTS mobile environment. Lim teaches using a gateway to connect a UMTS mobile network to an IP network (0004). The notion that Wall's teaching is directed to mobility and Lim teaching a type of mobile network is easily recognizable. Claim 17 would have been obvious because a person of ordinary skill has good reason to pursue the known options within his or her technical graphs. Therefore it would have been obvious to one of ordinary skill in the art at the time of the invention to try the UMTS teaching of Lim with the HIP mobile network of Wall.

As per claim 21, Wall is silent in disclosing the gateway node is a GGSN. Lim teaches using a GGSN to connect a mobile network to an IP network (0004). The notion that Wall's teaching is directed to mobility and Lim teaching a type of mobile network is easily recognizable. Claim 17 would have been obvious because a person of ordinary skill has good reason to pursue the known options within his or her technical

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graphs. Therefore it would have been obvious to one of ordinary skill in the art at the time of the invention to try the GGSN of Lim with the mobile network of Wall.

### ***Conclusion***

The prior art made of record and not relied upon is considered pertinent to applicant's disclosure are disclosed on the enclosed PTO-892 form.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to MICHAEL R. VAUGHAN whose telephone number is (571)270-7316. The examiner can normally be reached on Monday - Thursday, 7:30am - 5:00pm, EST.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Kim Vu can be reached on 571-272-3859. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business

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Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/M. R. V./

Examiner, Art Unit 2431

/Syed Zia/

Primary Examiner, Art Unit 2431